

Anesthesiology and Clinical physiology

1. Staffs and Students (April, 2009)

Associate Professor	Hikaru KOHASE	
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Secretary	Kana SYOUJI	
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Research Student	Katsunori MOTOHASHI, Yoko IKEDA, Wakako SUMIMOTO, Chikako OHE, Yoriko IKEDA,	Nobuyuki KONDOU, Hiromi IZUMIKAWA, Kae SHIMOMACHI, Taeka HIRASAWA, Takashi KOBAYASHI

2. Purpose of Education

Main objective of Anesthesiology and Clinical Physiology in the graduate course is to provide students inevitable knowledge and skills of general and local anesthesia, management of medically complicated patients in dental clinical setting and oro-facial pain treatment. The subjects including general anesthesia local dental anesthesia, sedation methods, CPR training are scheduled in the 5th grade students. The Students can learn respiratory and cardiovascular physiology , nature of genera anesthetics ,local anesthetics, intravenous anesthetics, muscle reluctant agents. As Psycho- sedation was frequently used in dental clinical setting, the students can learn and acquire the theory and technical aspects of sedation. The students can learn the pharmacological and complicated aspects of local anesthetics and practice how to handle the local anesthesia including the conduction block and infiltration anesthesia in oral region. The students can learn the theory of CPR and AHA CPR guidelines, and practice and acquire the BLS,ACLS sequence.

3. Research Subjects

- 1) Develop of non-invasive drug delivery system
- 2) Elucidation of relationships between noxious stimulation and autonomic nervous systems
- 3) Elucidation of cause of neuropathic pain and develop of its' treatments
- 4) Elucidation of mechanism of diffuse noxious inhibitory controlls
- 5) Clinical research of psycho-sedation and systemic management in dental clinical setting.

4. Clinical Services

Anesthesiology and clinical physiology provide general anesthesia and sedation for oral maxillofacial surgery, managements of medically complicated patients with psycho-sedation, daycare general anesthesia for handicapped patients, emergency treatment in dental hospital, and non invasive local anesthesia.

5. Publications

Original Article

1. Iijima T : Invited review; Complexity of blood volume control system and its implications to perioperative fluid management J Anesth 2009, 23(4): 534-542
2. Shirato K, Kizaki T, Sakurai T, Ogasawara JE, Ishibashi Y, Iijima T, Okada C, Noguchi I, Imaizumi K, Taniguchi N, Ohno H. Hypoxia-inducible factor-1alpha suppresses the expression of macrophage scavenger receptor 1. Pflugers Arch. 2009 459(1):93-103.
3. Nakazawa H, Ohnishi H, Okazaki H, Hashimoto S, Hotta H, Watanabe T, Ohkawa R, Yatomi Y, Nakajima K, Iwao Y, Takamoto S, Shimizu M, #Iijima T Impact of fresh frozen plasma from male-only donors versus mixed gender donors on postoperative respiratory function in surgical patients: a prospective case-controlled study Transfusion

Oral Restitution

2009, 49(11): 2434-41 #corresponding author

4. Sanada T, Kohase H, Makino K, Umino M. Effects of alpha-adrenergic agonists on pain modulation in diffuse noxious inhibitory control. *Journal of medical and dental sciences* 2009; 56: 17-24
5. T.Kawano, Y.Kabasawa, S.Ashikawa, Y.Sato, S.Jinno, K.Omura: Accuracy and reliability of thermal threshold measurement in the chin using heat flux technique, *Oral Surg Oral Med Oral Pathol Oral Radiol Endod*, 2009, 108(4),500-504
6. Fumihiro Yoshikawa, Hikaru Kohase, Masahiro Umino, Haruhisa Fukayama. Blood loss and endocrine responses in hypotensive anaesthesia with sodium nitroprusside and nitroglycerin for mandibular osteotomy. *International Journal of Oral & Maxillofacial Surgery*. 2009 ; 38(11) : 1159 – 1164
7. Hayashi S, Ogami S, Shibaji T, Umino M. Lidocaine transport through a cellophane membrane by alternating current iontophoresis with a duty cycle. *Bioelectrochemistry*, 74: 315-322. 2009.

Review Article

Book